**BILLING CODE 3510-22-P** 

#### DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648-XA877

Takes of Marine Mammals Incidental to Specified Activities; St. George Reef Light Station Restoration and Maintenance at Northwest Seal Rock, Del Norte County, California AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; proposed incidental take authorization; request for comments.

SUMMARY: NMFS has received an application from the St. George Reef Lighthouse Preservation Society (SGRLPS), for an Incidental Harassment Authorization (IHA) to take marine mammals, by harassment incidental to conducting aircraft operations, lighthouse renovation, and light maintenance activities on the St. George Reef Light Station on Northwest Seal Rock (NWSR) in the northeast Pacific Ocean from the period of February through April, 2012 and during the period of November through December, 2012. Pursuant to the Marine Mammal Protection Act (MMPA), NMFS is requesting comments on its proposal to issue an IHA to SGRLPS to incidentally harass, by Level B harassment only, four species of marine mammals during the specified activity.

DATES: Comments and information must be received no later than [insert date 30 days after date of publication in the FEDERAL REGISTER].

ADDRESSES: Comments on the application should be addressed to P. Michael Payne, Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910. The mailbox address for

providing email comments is <a href="ITP.Cody@noaa.gov">ITP.Cody@noaa.gov</a>. NMFS is not responsible for e-mail comments sent to addresses other than the one provided here. Comments sent via email, including all attachments, must not exceed a 10-megabyte file size.

Instructions: All comments received are a part of the public record and will generally be posted to <a href="http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications">http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications</a> without change. All Personal Identifying Information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information or otherwise sensitive or protected information.

An electronic copy of the application containing a list of the references used in this document may be obtained by writing to the above address, telephoning the contact listed here (see FOR FURTHER INFORMATION CONTACT) or visiting the internet at:

http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications. The following associated documents are also available at the same internet address: Environmental Assessment (EA) prepared by NMFS; and the finding of no significant impact (FONSI). Documents cited in this notice may be viewed, by appointment, during regular business hours, at the aforementioned address.

FOR FURTHER INFORMATION CONTACT: Jeannine Cody, NMFS, Office of Protected Resources, NMFS, (301) 713-2289 or Monica DeAngelis, NMFS Southwest Regional Office, (562) 980-3232.

#### SUPPLEMENTARY INFORMATION:

Background

Section 101(a)(5)(D) of the MMPA (16 U.S.C. 1371 (a)(5)(D)) directs the Secretary of Commerce to authorize, upon request, the incidental, but not intentional, taking by harassment of

small numbers of marine mammals of a species or population stock, by United States citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and a notice of a proposed authorization is provided to the public for review.

Authorization for incidental taking of small numbers of marine mammals shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), and will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant). The authorization must set forth the permissible methods of taking, other means of effecting the least practicable adverse impact on the species or stock and its habitat, and monitoring and reporting of such takings. NMFS has defined "negligible impact" in 50 CFR 216.103 as "...an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

Section 101(a)(5)(D) of the MMPA establishes a 45-day time limit for NMFS' review of an application followed by a 30-day public notice and comment period on any proposed authorizations for the incidental harassment of small numbers of marine mammals. Within 45 days of the close of the public comment period, NMFS must either issue or deny the authorization.

Except with respect to certain activities not pertinent here, the MMPA defines "harassment" as:

any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [Level B harassment].

## Summary of Request

NMFS received a letter on October 7, 2011, from the SGRLPS requesting the taking by harassment, of small numbers of marine mammals, incidental to aircraft operations and restoration and maintenance activities on the St. George Reef Light Station (Station). NMFS determined that application complete and adequate on October 21, 2011. The SGRLPS aims to: (1) restore and preserve the Station on a monthly basis (February – April, and November – December, 2012); and (2) perform periodic, annual maintenance on the Station's optical light system.

The Station, which is listed in the National Park Service's National Register of Historic Places, is located on Northwest Seal Rock (NWSR) offshore of Crescent City, California in the northeast Pacific Ocean.

The proposed activities would occur in the vicinity of a possible pinniped haul out site located on NWSR. Acoustic and visual stimuli generated by: (1) helicopter landings/takeoffs; (2) noise generated during restoration activities (e.g., painting, plastering, welding, and glazing); (3) maintenance activities (e.g., bulb replacement and automation of the light system); and (4) human presence, may have the potential to cause any pinnipeds hauled out on NWSR to flush into the surrounding water or to cause a short-term behavioral disturbance. These types of disturbances are the principal means of marine mammal taking associated with these activities and the SGRLPS has requested an authorization to take 204 California sea lions (Zalophus californianus); 36 Pacific Harbor seals (Phoca vitulina); 172 Steller sea lions (Eumetopias jubatus); and six northern fur seals (Callorhinus ursinus) by Level B harassment.

To date, NMFS has issued two, 1-year IHAs to the SGRLPS for the conduct of the same activities from 2009 to 2011. This is the SGRLPS' third request for an IHA; the current IHA will expire on December 31, 2011 (75 FR 10564, February 25, 2011).

Description of the Specified Activity

SGRLPS proposes to conduct the proposed activities (aircraft operations, lighthouse restoration, and light maintenance activities) from the period of February through April, 2012 and during the period of November through December, 2012, at a maximum frequency of one session per month. The proposed duration for each session would last no more than three days (e.g., Friday, Saturday, and Sunday).

## Aircraft Operations

Because NWSR has no safe landing area for boats, the proposed restoration activities would require the SGRLPS to transport personnel and equipment from the California mainland to NWSR by a small helicopter. Helicopter landings take place on top of the engine room (caisson) which is approximately 15 m (48 ft) above the surface of the rocks on NWSR.

SGRLPS proposes to transport no more than 15 work crew members and equipment to NWSR for each session and estimates that each session would require no more than 36 helicopter landings/takeoffs per month. During landing, the helicopter would land on the caisson to allow the work crew members to disembark and retrieve their equipment located in a basket attached to the underside of the helicopter. The helicopter would then return to the mainland to pick up additional personnel and equipment. Even though SGRLPS would use the helicopter to transport work crew members and materials on the first and last days of the three-day activity, the helicopter would likely fly to and from the Station on all three days of the restoration and maintenance activities.

Proposed schedule: SGRLPS would conduct a maximum of 16 flights (eight arrivals and eight departures) for the first day. The first flight would depart from Crescent City Airport at approximately 9 a.m. for a 6-minute flight to NWSR. The helicopter would land and takeoff immediately after offloading personnel and equipment every 20 minutes (min). The total duration of the first day's aerial operations would last for approximately 3 hours (hrs) and 26 min and would end at approximately 12:34 p.m. Crew members would remain overnight at the Station and would not return to the mainland on the first day.

For the second day, the SGRLPS would conduct a maximum of 10 flights (five arrivals and five departures) to transport additional materials on and off the islet. The first flight would depart from Crescent City Airport at 9 a.m. for a 6-minute flight to NWSR. The total duration of the second day's aerial operations would last up to three hours.

For the final day of operations, SGRLPS would conduct a maximum of eight helicopter flights (four arrivals and four departures) to transport the remaining crew members and equipment/material back to the Crescent City Airport. The total duration of the third day's helicopter operations in support of restoration would last up to 2 hrs and 14 min.

As a mean of funding support for the restoration activities, the SGRLPS will conduct public tours of the Station during the last day of the proposed restoration and maintenance activities.

SGRLPS proposes to transport visitors to the Station during the Sunday work window period.

Although some of these flights would be conducted solely for the transportation of tourists, those flights would be conducted at a later stage when no pinnipeds are expected to be at the Station.

The proposed IHA does not include additional allowance for animals that might be affected by additional flights for the transportation of tourists.

### Lighthouse Restoration Activities

Restoration activities would include the removal of peeling paint and plaster, restoration of interior plaster and paint, refurbishing structural and decorative metal, reworking original metal support beams throughout the lantern room and elsewhere, replacing glass as necessary, and upgrading the present electrical system. The SGRLPS expects to complete most of the major restoration work within five years.

### **Light Maintenance Activities**

The SGRLPS will need to conduct maintenance on the Station's beacon light at least once or up to two times per year within the proposed work window. Scheduled light maintenance activities would coincide with lighthouse restoration activities conducted monthly during the period of February through April, 2012 and during the period of November through December, 2012. The SGRLPS expects that maintenance activities would not exceed three hrs per each monthly session.

### **Emergency Light Maintenance**

If the beacon light fails during the period from February 10, 2012, through April 30, 2012, or during the period of November 1, 2012, through December 31, 2012, the SGRLPS proposes to send a crew of two to three people to the Station by helicopter to repair the beacon light. For each emergency repair event, the SGRLPS proposes to conduct a maximum of four flights (two arrivals and two departures) to transport equipment and supplies. The helicopter may remain on site or transit back to shore and make a second landing to pick up the repair personnel.

In the case of an emergency repair between May 1, 2012, and October 31, 2012, the SGRLPS would consult with the NMFS Southwest Regional Office (SWRO) to best determine the timing of the trips to the lighthouse, on a case-by-case basis, based upon the existing environmental

conditions and the abundance and distribution of any marine mammals present on NWSR. The SWRO biologists would have real-time knowledge regarding the animal use and abundance of the NWSR at the time of the repair request and would make a decision regarding when the trips to the lighthouse can be made during the emergency repair time window that would have the least practicable adverse impact to marine mammals. The SWRO would also ensure that the SGRLPS' request for incidental take during emergency repairs would not exceed the number of incidental take authorized in the proposed IHA.

Complete automation of the light generating system and automatic backup system will minimize maintenance and emergency repair visits to the island. The light is solar powered using one solar panel; an installed second panel serves as a backup which is automatically activated if needed. A second smaller bulb in the lantern is activated if the primary bulb fails. Use of high quality, durable materials and thorough weatherproofing is planned to minimize trips for maintenance and repair in the future. All tools and supplies are stored on the island so that a minimal number of transport trips for emergency maintenance will be necessary.

**Acoustic Source Specifications** 

#### R44 Raven Helicopter

The SGRLPS plans to charter a Raven R44 helicopter, owned and operated by Air Shasta Rotor and Wing, LLC. The Raven R44, which seats three passengers and one pilot, is a compact-sized (1134 kilograms (kg), 2500 pounds (lbs)) helicopter with two-bladed main and tail rotors. Both sets of rotors are fitted with noise-attenuating blade tip caps that would decrease flyover noise.

# Metrics Used in This Document

This section includes a brief explanation of the sound measurements frequently used in the discussions of acoustic effects in this document. Sound pressure is the sound force per unit area, and is usually measured in micropascals ( $\mu$ Pa), where 1 pascal (Pa) is the pressure resulting from a force of one newton exerted over an area of one square meter. Sound pressure level (SPL) is expressed as the ratio of a measured sound pressure and a reference level. The commonly used reference pressure is 1  $\mu$ Pa for under water, and the units for SPLs are dB re: 1  $\mu$ Pa. The commonly used reference pressure is 20  $\mu$ Pa for in air, and the units for SPLs are dB re: 20  $\mu$ Pa.

SPL (in decibels (dB)) =  $20 \log (pressure/reference pressure)$ 

SPL is an instantaneous measurement and can be expressed as the peak, the peak-peak (p-p), or the root mean square (rms). Root mean square, which is the square root of the arithmetic average of the squared instantaneous pressure values, is typically used in discussions of the effects of sounds on vertebrates and all references to SPL in this document refer to the root mean square unless otherwise noted. SPL does not take the duration of a sound into account.

#### Characteristics of the Aircraft Noise

Noise testing performed on the R44 Raven Helicopter, as required for Federal Aviation Administration approval, required an overflight at 150 m (492 ft) above ground level, 109 knots and a maximum gross weight of 1,134 kg (2,500 lbs). The noise levels measured on the ground at this distance and speed were 81.9 decibels (dB) re:  $20 \mu Pa$  (A-weighted) for the model R44 Raven I, or 81.0 dB re:  $20 \mu Pa$  (A-weighted) for the model R44 Raven II (NMFS, 2007).

The helicopter would land on the Station's caisson and presumably, the received sound levels would increase above 81-81.9 dB re: 20 µPa (A-weighted) at the landing area.

### Characteristics of Restoration and Maintenance Noise

Restoration and maintenance activities would involve the removal of peeling paint and plaster, restoration of interior plaster and paint, refurbishing structural and decorative metal, reworking original metal support beams throughout the lantern room and elsewhere, replacing glass as necessary, upgrading the present electrical system; and annual light beacon maintenance. Any noise associated with these activities is likely to be from light construction (e.g., sanding, hammering, or use of hand drills). The SGRLPS proposes to confine all restoration activities to the existing structure which would occur on the upper levels of the Station. The pinnipeds of NWSR do not have access to this area.

NMFS expects that acoustic stimuli resulting from the proposed helicopter operations; noise from maintenance and restoration activities; and human presence has the potential to harass marine mammals, incidental to the conduct of the proposed activities. NMFS expects these disturbances to be temporary and result, at worst, in a temporary modification in behavior and/or low-level physiological effects (Level B Harassment) of small numbers of certain species of marine mammals.

Description of the Specified Geographic Region

The Station is located on a small, rocky islet (41°50'24" N, 124°22'06" W) approximately nine kilometers (km) (6.0 miles (mi)) in the northeast Pacific Ocean, offshore of Crescent City, California (Latitude: 41°46′48" N; Longitude: 124°14′11" W). NWSR is approximately 91.4 m (300 ft) in diameter that peaks at 5.18 m (17 ft) above mean sea level. The Station, built in 1892, rises 45.7 m (150 ft) above the sea, consists of hundreds of granite blocks, is topped with a cast iron lantern room, and covers much of the surface of the islet.

Description of Marine Mammals in the Area of the Proposed Specified Activity

The marine mammal species likely to be harassed incidental to helicopter operations, lighthouse restoration, and lighthouse maintenance on NWSR are the California sea lion, the Pacific harbor seal, the eastern (Distinct Population Segment) U.S. stock of Steller sea lion, and the and the eastern Pacific stock of northern fur seal. NMFS refers the reader to Caretta et al., (2011) and Allen and Angliss (2011) for general information of these species. The stock assessment reports are available at the following URLs:

http://www.nmfs.noaa.gov/pr/pdfs/sars/po2011\_draft.pdf and http://www.nmfs.noaa.gov/pr/pdfs/sars/ak2011\_draft.pdf respectively.

NMFS presents a summary of information on these species is presented below this section.

### California sea lion

California sea lions are not listed as threatened or endangered under the Endangered Species Act (ESA; 16 U.S.C. 1531 et seq.), nor are they categorized as depleted under the MMPA. The California sea lion, found from southern Mexico to southwestern Canada, is now considered to be a full species, separated from Galapagos sea lion (Z. wollebaeki) and the extinct Japanese sea lion (Z. japonicus) (Brunner 2003, Wolf et al., 2007, Schramm et al., 2009). Genetic analysis of California sea lions identified five genetically distinct geographic populations: (1) Pacific Temperate, (2) Pacific Subtropical, (3) Southern Gulf of California, (4) Central Gulf of California and (5) Northern Gulf of California (Schramm et al., 2009). Animals from the temperate population range north into Canadian waters, and some movement of animals between U.S. waters and Baja California waters has been documented though the distance between the major U.S. and Baja California rookeries.

In 2011, the estimated population of the U.S. stock of California sea lion ranged from 153,337 to 296,750 animals and the maximum population growth rate was 9.2 percent when pup

counts from El Niño years (1983, 1984, 1992, 1993, 1998, and 2003) were removed (Carretta <u>et al.</u>, 2011).

Major rookeries for the California sea lion exist on the Channel Islands off southern

California and on the islands situated along the east and west coasts of Baja California. The

breeding areas of the California sea lion are on islands located in southern California, western

Baja California, and the Gulf of California. Males are polygamous, establishing breeding

territories that may include up to 14 females. They defend their territories with aggressive

physical displays and vocalization. Sea lions reach sexual maturity at four to five years old and
the breeding season lasts from May to August. Most pups are born from May through July and
weaned at 10 months old.

Crescent Coastal Research (CCR) conducted a three-year (1998-2000) survey of the wildlife species on NWSR for the SGRLPS. They reported that counts of California sea lions on NWSR varied greatly (from six to 541) during the observation period from April 1997 through July 2000. CCR reported that counts for California sea lions during the spring (April - May), summer (June - August), and fall (September - October), averaged 60, 154, and 235, respectively (CCR, 2001).

Recent counts by NMFS in July (2000-2004) have been relatively low as the total number of California sea lions recorded in 2000 and 2003 were 3 and 11, respectively (M. Lowry, NMFS, SWFSC, unpublished data). Similarly, the SGRLPS reported that California sea lions were not present on NWSR during the 2010 season; and during the current 2011 season the SGRLPS has preliminarily reported sighting a total of two California sea lions in the vicinity of NWSR (Terry McNamara, SGRLPS, pers. comm.).

# Pacific harbor seal

Pacific harbor seals are not listed as threatened or endangered under the ESA, nor are they categorized as depleted under the MMPA. The animals inhabit near-shore coastal and estuarine areas from Baja California, Mexico, to the Pribilof Islands in Alaska. Pacific harbor seals are divided into two subspecies: P. v. stejnegeri in the western North Pacific, near Japan, and P. v. richardsi in the northeast Pacific Ocean. The latter subspecies, recognized as separate stocks, inhabits the west coast of the continental United States, including: the outer coastal waters of Oregon and Washington states; Washington state inland waters; and Alaska coastal and inland waters. Two of these stocks, the California stock and Oregon/Washington coast stock, of Pacific harbor seals are identified off the coast of Oregon and California for management purposes under the MMPA. However, the stock boundary is difficult to distinguish because of the continuous distribution of harbor seals along the west coast and any rigid boundary line is (to a greater or lesser extent) arbitrary, from a biological perspective (Carretta et al., 2011). Due to the location of the proposed project which is situated near the border of Oregon and California, both stocks could be present within the proposed project area.

In 2011, the estimated population of the California of Pacific harbor seals ranged from 26,667 to 30,196 animals and the maximum population growth rate was 3.5 percent (Carretta et al., 2011).

In California, over 500 harbor seal haulout sites are widely distributed along the mainland and offshore islands, and include rocky shores, beaches and intertidal sandbars (Lowry et al., 2005). Harbor seals mate at sea and females give birth during the spring and summer, although, the pupping season varies with latitude. Pups are nursed for an average of 24 days and are ready to swim minutes after being born. Harbor seal pupping takes place at many locations and

rookery size varies from a few pups to many hundreds of pups. The nearest harbor seal rookery relative to the proposed project site is at Castle Rock National Wildlife Refuge, located approximately located 965 m (0.6 mi) south of Point St. George, and 2.4 km (1.5 mi) north of the Crescent City Harbor in Del Norte County, California (USFWS, 2007).

CCR noted that harbor seal use of NWSR was minimal, with only one sighting of a group of six animals, during 20 observation surveys. They hypothesized that harbor seals may avoid the islet because of its distance from shore, relatively steep topography, and full exposure to rough and frequently turbulent sea swells. For the 2010 and 2011 seasons, the SGRLPS has not observed any Pacific harbor seals present on NWSR during restoration activities.

### Northern fur seal

Northern fur seals are not listed as threatened or endangered under the ESA. However, they are categorized as depleted under the MMPA. Northern fur seals occur from southern California north to the Bering Sea and west to the Sea of Okhotsk and Honshu Island of Japan. Two separate stocks of northern fur seals are recognized within U.S. waters: an Eastern Pacific stock distributed among sites in Alaska, British Columbia; and a San Miguel Island stock distributed along the west coast of the continental U.S.

Northern fur seals may temporarily haul out on land at other sites in Alaska, British Columbia, and on islets along the west coast of the continental United States, but generally this occurs outside of the breeding season (Fiscus, 1983).

In 2011, the estimated population of the San Miguel Island stock ranged from 5,395 to 9,968 animals and the maximum population growth rate was 12 percent (Carretta et al., 2011).

Northern fur seals breed in Alaska and migrate along the west coast during fall and winter.

Due to their pelagic habitat, they are rarely seen from shore in the continental U.S., but

individuals occasionally come ashore on islands well offshore (i.e., Farallon Islands and Channel Islands in California). During the breeding season, approximately 74 percent of the worldwide population is found on the Pribilof Islands in Alaska, with the remaining animals spread throughout the North Pacific Ocean (Lander and Kajimura, 1982).

CCR observed one male northern fur seal on NWSR in October, 1998 (CCR, 2001). It is possible that a few animals may use the island more often that indicated by the CCR surveys, if they were mistaken for other otariid species (M. DeAngelis, NMFS, pers. comm.). For the 2010 and 2011 seasons, the SGRLPS has not observed any northern fur seals present on NWSR during restoration activities (Terry McNamara, SGRLPS, pers. comm.).

### Steller sea lion

The Steller sea lion eastern stock is listed as threatened under the ESA and is categorized as depleted under the MMPA. Steller sea lions range along the North Pacific Rim from northern Japan to California (Loughlin et al., 1984), with centers of abundance and distribution in the Gulf of Alaska and Aleutian Islands, respectively. Two separate stocks of Steller sea lions were recognized within U.S. waters: an eastern U.S. stock, which includes animals east of Cape Suckling, Alaska (144° W), and a western U.S. stock, which includes animals at and west of Cape Suckling (Loughlin, 1997). The species is not known to migrate, but individuals disperse widely outside of the breeding season (late May through early July), thus potentially intermixing with animals from other areas (Sease and York, 2003).

In 2011, the estimated population of the eastern U.S. stock ranged from 52,847 to 72,223 animals and the maximum population growth rate was 3.1 percent (Allen and Angliss, 2011).

The eastern U.S. stock of Steller sea lions breeds on rookeries located in southeast Alaska, British Columbia, Oregon, and California; there are no rookeries located in Washington state. Counts of pups on rookeries conducted near the end of the birthing season are nearly complete counts of pup production.

Despite the wide-ranging movements of juveniles and adult males in particular, exchange between rookeries by breeding adult females and males (other than between adjoining rookeries) appears low, although males have a higher tendency to disperse than females (NMFS 1995, Trujillo et al., 2004, Hoffman et al., 2006). A northward shift in the overall breeding distribution has occurred, with a contraction of the range in southern California and new rookeries established in southeastern Alaska (Pitcher et al., 2007).

CCR reported that Steller sea lion numbers at NWSR ranged from 20 to 355 animals. Counts of Steller sea lions during the spring (April - May), summer (June - August), and fall (September - October), averaged 68, 110, and 56, respectively (CCR, 2001). A more recent survey at NWSR between 2000 and 2004 showed Steller sea lion numbers ranged from 175 to 354 in July (M. Lowry, NMFS/SWFSC, unpubl. data). Winter use of NWSR by Steller sea lion is presumed to be minimal, due to inundation of the natural portion of the island by large swells.

For the 2010 the SGRLPS reported that no Steller sea lions were present in the vicinity of NWSR during restoration activities. During the current 2011 season the SGRLPS has preliminarily reported sighting a total of nine California sea lions rafting near NWSR during restoration activities (Terry McNamara, SGRLPS, pers. comm.).

### Other Marine Mammals in the Proposed Action Area

There are several endangered cetaceans that have the potential to transit in the vicinity of NWSR including the blue (<u>Balaenoptera musculus</u>), fin (<u>Balaenoptera physalus</u>), humpback (<u>Megaptera novaeangliae</u>), sei (<u>Balaenoptera borealis</u>), north Pacific right (<u>Eubalena japonica</u>), sperm (Physeter macrocephalus), and southern resident killer (Orcinus orca) whales.

California (southern) sea otters (Enhydra lutris nereis), listed as threatened under the ESA and categorized as depleted under the MMPA, usually range in coastal waters within two km of shore. Neither CCR nor the SGRLPS has encountered California sea otters on NWSR during the course of the four-year wildlife study (CCR, 2001) nor has the SGRLPS encountered the species during the course of the previous two IHAs. The U.S. Fish and Wildlife Service (USFWS) manages the sea otter and NMFS will not consider this species further in this proposed IHA notice.

All of the aforementioned species are found farther offshore than the proposed action area and are not likely to be affected by the restoration and maintenance activities. Accordingly, NMFS will not consider these species in greater detail and the proposed IHA will only address requested take authorizations for pinnipeds.

#### Potential Effects on Marine Mammals

Acoustic and visual stimuli generated by: (1) helicopter landings/takeoffs; (2) noise generated during restoration activities (e.g., painting, plastering, welding, and glazing); and (3) maintenance activities (e.g., bulb replacement and automation of the light system) may have the potential to cause Level B harassment of any pinnipeds hauled out on NWSR. The effects of sounds from helicopter operations and/or restoration and maintenance activities might include one of the following: temporary or permanent hearing impairment or behavioral disturbance (Southall, et al., 2007).

### **Hearing Impairment**

Marine mammals produce sounds in various important contexts—social interactions, foraging, navigating, and to responding to predators. The best available science suggests that pinnipeds have a functional aerial hearing sensitivity between 75 hertz (Hz) and 75 kilohertz

(kHz) and can produce a diversity of sounds, though generally from 100 Hz to several tens of kHz (Southall, et al., 2007).

Exposure to high intensity sound for a sufficient duration may result in auditory effects such as a noise-induced threshold shift—an increase in the auditory threshold after exposure to noise (Finneran, Carder, Schlundt, and Ridgway, 2005). Factors that influence the amount of threshold shift include the amplitude, duration, frequency content, temporal pattern, and energy distribution of noise exposure. The magnitude of hearing threshold shift normally decreases over time following cessation of the noise exposure. The amount of threshold shift just after exposure is called the initial threshold shift. If the threshold shift eventually returns to zero (i.e., the threshold returns to the pre-exposure value), it is called temporary threshold shift (TTS) (Southall et al., 2007).

Pinnipeds have the potential to be disturbed by airborne and underwater noise generated by the engine of the aircraft (Born, Riget, Dietz, and Andriashek, 1999; Richardson, Greene, Malme, and Thomson, 1995). Data on underwater TTS-onset in pinnipeds exposed to pulses are limited to a single study which exposed two California sea lions to single underwater pulses from an arc-gap transducer and found no measurable TTS following exposures up to 183 dB re: 1 μPa (peak-to-peak) (Finneran, Dear, Carder, and Ridgway, 2003).

TTS has been demonstrated and studied in certain captive odontocetes and pinnipeds exposed to strong sounds (reviewed in Southall <u>et al.</u>, 2007). In 2004, researchers measured auditory fatigue to airborne sound in harbor seals, California sea lions, and northern elephant seals (<u>Mirounga angustirostris</u>) after exposure to non-pulse noise for 25 minutes (Kastak, Southall, Holt, Kastak, and Schusterman, 2004). In the study, the harbor seal experienced approximately 6 dB of TTS at 99 dB re: 20 µPa. Onset of TTS was identified in the California sea lion at 122 dB

re: 20 μPa. The northern elephant seal experienced TTS-onset at 121 dB re: 20 μPa (Kastak et al., 2004).

There is a dearth of information on acoustic effects of helicopter overflights on pinniped hearing and communication (Richardson et al., 1995) and to NMFS' knowledge, there has been no specific documentation of TTS, let alone permanent threshold shift (PTS), in free-ranging pinnipeds exposed to helicopter operations during realistic field conditions.

In 2008, NMFS issued an IHA to the U.S. Fish and Wildlife Service (USFWS) for the take of small numbers of Steller sea lions and Pacific harbor seals, incidental to rodent eradication activities on an islet offshore of Rat Island, AK conducted by helicopter. The 15-minute aerial treatment consisted of the helicopter slowly approaching the islet at an elevation of over 1,000 feet (304.8 m); gradually decreasing altitude in slow circles; and applying the rodenticide in a single pass and returning to Rat Island. The gradual and deliberate approach to the islet resulted in the sea lions present initially becoming aware of the helicopter and calmly moving into the water. Further, the USFWS reported that all responses fell well within the range of Level B harassment (i.e., alert head raises without moving or limited, short-term displacement resulting from aircraft noise due to helicopter overflights).

As a general statement from the available information, pinnipeds exposed to intense (approximately 110 to 120 dB re: 20 µPa) non-pulse sounds often leave haulout areas and seek refuge temporarily (minutes to a few hours) in the water (Southall et al., 2007). Any noise attributed to the SGRLPS' proposed helicopter operations on NWSR would be short-term (approximately 5 min per trip). NMFS would expect the ambient noise levels to return to a baseline state when helicopter operations have ceased for the day. Per Richardson et al. (1995), approaching aircraft generally flush animals into the water and noise from a helicopter is

typically directed down in a "cone" underneath the aircraft. As the helicopter landings take place 15 m (48 ft) above the surface of the rocks on NWSR, NMFS presumes that the received sound levels would increase above 81-81.9 dB re: 20 µPa (A-weighted) at the landing pad. However, NMFS does not expect that the increased received levels of sound from the helicopter would cause TTS or PTS because the pinnipeds would flush before the helicopter approached NWSR; thus increasing the distance between the pinnipeds and the received sound levels on NWSR during the proposed action.

#### Behavioral Disturbance

There is increasing recognition that the effect of human disturbance on wildlife is highly dependent on the nature of the disturbance (Burger et al., 1995; Klein et al., 1995; and Kucey, 2005). Disturbances resulting from human activity can impact short- and long-term pinniped haul out behavior (Renouf et al., 1981; Schneider and Payne, 1983; Terhune and Almon, 1983; Allen et al., 1984; Stewart, 1984; Suryan and Harvey, 1999; Mortenson et al., 2000; and Kucey and Trites, 2006). The apparent skittishness of both harbor seals and Steller sea lions raises concerns regarding behavioral and physiological impacts to individuals and populations experiencing high levels of human disturbance. It is well known that human activity can flush harbor seals off haul out sites (Allen et al., 1984; Calambokidis et al., 1991; Suryan and Harvey, 1999; Mortenson et al., 2000).

The Hawaiian monk seal (Monachus schauinslandi) has been shown to avoid beaches that have been disturbed often by humans (Kenyon, 1972). Stevens and Boness (2003) concluded that after the 1997- 98 El Niño, when populations of the South American fur seal, Arctocephalus australis, in Peru declined dramatically, seals abandoned some of their former primary breeding sites, but continued to breed at adjacent beaches that were more rugged (i.e., less likely to be

used by humans). Abandoned and unused sites were more likely to have human disturbance than currently used sites. In one case, human disturbance appeared to cause Steller sea lions to desert a breeding area at Northeast Point on St. Paul Island, Alaska (Kenyon, 1962).

It is likely that the initial helicopter approach to the Station would cause a subset, or all of the marine mammals hauled out on NWSR to depart the rock and flush into the water. The physical presence of aircraft could also lead to non-auditory effects on marine mammals involving visual or other cues. Airborne sound from a low-flying helicopter or airplane may be heard by marine mammals while at the surface or underwater. In general, helicopters tend to be noisier than fixed wing aircraft of similar size and underwater sounds from aircraft are strongest just below the surface and directly under the aircraft. Noise from aircraft would not be expected to cause direct physical effects but have the potential to affect behavior. The primary factor that may influence abrupt movements of animals is engine noise, specifically changes in engine noise. Responses by mammals could include hasty dives or turns, change in course, or flushing and stampeding from a haul out site. There are few well documented studies of the impacts of aircraft overflight over pinniped haul out sites or rookeries, and many of those that exist, are specific to military activities (Efroymson et al., 2001).

Several factors complicate the analysis of long- and short-term effects for aircraft overflights. Information on behavioral effects of overflights by military aircraft (or component stressors) on most wildlife species is sparse. Moreover, models that relate behavioral changes to abundance or reproduction, and those that relate behavioral or hearing effects thresholds from one population to another are generally not available. In addition, the aggregation of sound frequencies, durations, and the view of the aircraft into a single exposure metric is not always the best predictor of effects and it may also be difficult to calculate. Overall, there has been no indication

that single or occasional aircraft flying above pinnipeds in water cause long term displacement of these animals (Richardson et al., 1995). The Lowest Observed Adverse Effects Levels (LOAELs) are rather variable for pinnipeds on land, ranging from just over 150 m (492 ft) to about 2,000 m (6,562 ft) (Efroymson et al., 2001). A conservative (90th percentile) distance effects level is 1,150 m (3,773 ft). Most thresholds represent movement away from the overflight. Bowles and Stewart (1980) estimated an LOAEL of 305 m (1,000 ft) for helicopters (low and landing) in California sea lions and harbor seals observed on San Miguel Island, CA; animals responded to some degree by moving within the haul out and entering into the water, stampeding into the water, or clearing the haul out completely. Both species always responded with the raising of their heads. California sea lions appeared to react more to the visual cue of the helicopter than the noise.

If pinnipeds are present on NWSR, it is likely that a helicopter landing at the Station would cause 100 percent of the pinnipeds on NWSR to flush; however, when present, they appear to show rapid habituation to helicopter landing and departure (Crescent Coastal Research, 2001; Guy Towers, SGRLPS, pers. com.). According to the CCR Report (2001), while up to 40 percent of the California and Steller sea lions present on the rock have been observed to enter the water on the first of a series of helicopter landings, as few as zero percent have flushed on subsequent landings on the same date.

If pinnipeds are present on NWSR, Level B behavioral harassment of pinnipeds may occur during helicopter landing and takeoff from NWSR due to the pinnipeds temporarily moving from the rocks and lower structure of the Station into the sea due to the noise and appearance of helicopter during approaches and departures. It is expected that all or a portion of the marine mammals hauled out on the island will depart the rock and move into the water upon initial

helicopter approaches. The movement to the water is expected to be gradual due to the required controlled helicopter approaches (see Proposed Mitigation section), the small size of the aircraft, the use of noise-attenuating blade tip caps on the rotors, and behavioral habituation on the part of the animals as helicopter trips continue throughout the day. During the sessions of helicopter activity, if present on NWSR, some animals may be temporarily displaced from the island and either raft in the water or relocate to other haul-outs.

Sea lions have shown habituation to helicopter flights within a day at the project site and most animals are expected to return soon after helicopter activities cease for that day. By clustering helicopter arrival/departures within a short time period, animals are expected to show less response to subsequent landings. No impact on the population size or breeding stock of Steller sea lions, California sea lions, Pacific harbor seals, or northern fur seals is expected to occur.

Restoration and maintenance activities would involve the removal of peeling paint and plaster, restoration of interior plaster and paint, refurbishing structural and decorative metal, reworking original metal support beams throughout the lantern room and elsewhere, replacing glass as necessary, upgrading the present electrical system; and annual light beacon maintenance. Any noise associated with these activities is likely to be from light construction (e.g., sanding, hammering, or use of hand drills) and the pinnipeds may be disturbed by human presence. Animals respond to disturbance from humans in the same way as they respond to the risk of predation, by avoiding areas of high risk, either completely or by using them for limited periods (Gill et al., 1996).

### Mortality

Sudden movement of large numbers of animals may cause a stampede. In order to prevent such stampedes from occurring within the sea lion colony, certain mitigation requirements and restrictions, such as controlled helicopter approaches and limited access period during the pupping season, will be imposed should an IHA be issued. As such, and because any pinnipeds nearby likely would avoid the approaching helicopter, the SGRLPS anticipates that there will be no instances of injury or mortality during the proposed project.

# Anticipated Effects on Habitat

The NMFS expects that there will be no long- or short-term physical impacts to pinniped habitat on NWSR. The SGRLPS proposes to confine all restoration activities to the existing structure which would occur on the upper levels of the Station which are not used by marine mammals. The SGRLPS would remove all waste, discarded materials and equipment from the island after each visit. The proposed activities will not result in any permanent impact on habitats used by marine mammals, including the food sources they use. The main impact associated with the proposed activity will be temporarily elevated noise levels and the associated direct effects on marine mammals, previously discussed in this notice.

# **Proposed Mitigation**

In order to issue an incidental take authorization (ITA) under section 101(a)(5)(D) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to such activity, and other means of effecting the least practicable adverse impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and the availability of such species or stock for taking for certain subsistence uses.

As a way to reduce potential Level B behavioral harassment to marine mammals that would result from the proposed project, NMFS proposes that the following mitigation measures would be required.

<u>Time and Frequency</u>: Lighthouse restoration activities are to be conducted at maximum of once per month between February 10, 2012, through April 30, 2012, or between November 1, 2012, through December 31, 2012. Each restoration session will last no more than three days. Maintenance of the light beacon will occur only in conjunction with restoration activities.

Helicopter Approach and Timing Techniques: The SGRLPS shall ensure that helicopter approach patterns to the lighthouse will be such that the timing techniques are least disturbing to marine mammals. To the extent possible, the helicopter should approach NWSR when the tide is too high for the marine mammals to haul-out on NWSR.

Since the most severe impacts (stampede) are precipitated by rapid and direct helicopter approaches, initial approach to the Station must be offshore from the island at a relatively high altitude (e.g., 800 - 1,000 ft, or 244 - 305 m). Before the final approach, the helicopter shall circle lower, and approach from area where the density of pinnipeds is the lowest. If for any safety reasons (e.g., wind condition) such helicopter approach and timing techniques cannot be achieved, the SGRLPS must abort the restoration and maintenance activities for that day.

Avoidance of Visual and Acoustic Contact with People on Island: The SGRLPS members and restoration crews shall be instructed to avoid making unnecessary noise and not expose themselves visually to pinnipeds around the base of the lighthouse. Although no impacts from these activities were seen during the 2001 CCR study, it is relatively simple to avoid this potential impact. The door to the lower platform (which is used at times by pinnipeds) shall remain closed and barricaded to all tourists and other personnel.

## **Mitigation Conclusions**

NMFS has carefully evaluated the applicant's proposed mitigation measures in the context of ensuring that NMFS prescribes the means of effecting the least practicable impact on the affected marine mammal species and stocks and their habitat. Our evaluation of potential measures included consideration of the following factors in relation to one another:

- The manner in which, and the degree to which, the successful implementation of the measure is expected to minimize adverse impacts to marine mammals;
- The proven or likely efficacy of the specific measure to minimize adverse impacts as planned; and
- The practicability of the measure for applicant implementation.

Based on our evaluation of the applicant's proposed measures, NMFS has preliminarily determined that the proposed mitigation measures provide the means of effecting the least practicable impact on marine mammal species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.

#### Summary of Previous Monitoring

The SGRLPS complied with the mitigation and monitoring required under the previous authorization for the 2010 season. In compliance with the 2010 IHA, the SGRLPS submitted a final report on the activities at the Station, covering the period of January 27, 2010 through April 30, 2010. During the effective dates of the 2010 IHA, the SGRLPS conducted two sessions of aircraft operations and restoration activities on NWSR which did not exceed the activity levels analyzed under the 2010 authorization.

The 2010 IHA required that the SGRLPS conduct a pre-restoration and post-restoration aerial survey of all marine mammals hauled-out on NWSR for each session. NMFS restricted the

SGRLPS' taking of aerial photographs to an altitude greater than 300 m (984 feet ft) during the first arrival flight and the last departure flight. This is the minimum altitude set within the 2010 Biological Opinion (BiOp) Incidental Take Statement (ITS) which follows the reference distance of 300 m (984 feet ft) for in-air measurements and predictions established by Richardson et al. (1995).

On February 26, 2010, the SGRLPS' photographed the haulout areas on the initial approach to NWSR at an altitude of 900 m (2,953 ft). During the approach, the photographer observed no animals hauled out on NWSR. The SGRLPS observed no animals hauled on NWSR during the two-day restoration session and no pinnipeds were present during the helicopter's February 28<sup>th</sup> departure flight to the mainland.

On April 9, 2010, the SGRLPS' photographed the haulout areas on the initial approach to NWSR at an altitude of 900 m (2,953 ft). Similar to the February session, the photographer observed no animals hauled out on NWSR during approach. The SGRLPS observed no animals hauled on NWSR during the three-day restoration session and no pinnipeds were present during the helicopter's April 11<sup>th</sup> departure flight to the mainland.

The SGRLPS observed no animals hauled on NWSR during the entirety of each session. As there were no observed impacts to pinnipeds from these activities, NMFS was unable to assess the effectiveness of mitigation measures for helicopter approaches set forth in the 2010 IHA. However, the 2010 IHA restricted SGRLP's access to NWSR during the pupping season. These results did not refute NMFS' original findings.

## **Proposed Monitoring**

In order to issue an ITA for an activity, section 101(a)(5)(D) of the MMPA states that NMFS must set forth "requirements pertaining to the monitoring and reporting of such taking". The MMPA implementing regulations at 50 CFR 216.104 (a)(13) indicate that requests for IHAs must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present.

At least once during the period between February 10, 2012, through April 30, 2012, or during the period of November 1, 2012, through December 31, 2012 a qualified biologist shall be present during all three workdays at the Station. The biologist hired will be subject to approval of NMFS and this requirement may be modified depending on the results of the second year of monitoring.

The qualified biologist shall document use of the island by the pinnipeds, frequency, (i.e., dates, time, tidal height, species, numbers present, and any disturbances), and note any responses to potential disturbances. In the event of any observed Steller sea lion injury, mortality, or the presence of newborn pup, the SGRLPS will notify the NMFS SWRO Administrator and the NMFS Director of Office of Protected Resources immediately.

Aerial photographic surveys may provide the most accurate means of documenting species composition, age and sex class of pinnipeds using the project site during human activity periods. Aerial photo coverage of the island shall be completed from the same helicopter used to transport the SGRLPS personnel to the island during restoration trips. Photographs of all marine mammals hauled out on the island shall be taken at an altitude greater than 300 m (984 ft) by a skilled photographer, prior to the first landing on each visit included in the monitoring program.

Photographic documentation of marine mammals present at the end of each three-day work session shall also be made for a before and after comparison. These photographs will be forwarded to a biologist capable of discerning marine mammal species. Data shall be provided to NMFS in the form of a report with a data table, any other significant observations related to marine mammals, and a report of restoration activities (see Reporting). The original photographs can be made available to NMFS or other marine mammal experts for inspection and further analysis.

#### **Proposed Reporting**

The SGRLPS personnel will record data to document the number of marine mammals exposed to helicopter noise and to document apparent disturbance reactions or lack thereof.

SGRLPS and NMFS will use the data to estimate numbers of animals potentially taken by Level B harassment.

## **Interim Monitoring Report**

The SGRLPS will submit interim monitoring reports to the NMFS SWRO Administrator and the NMFS Director of Office of Protected Resources no later than 30 days after the conclusion of each monthly session. The interim report will describe the operations that were conducted and sightings of marine mammals near the proposed project. The report will provide full documentation of methods, results, and interpretation pertaining to all monitoring.

Each interim report will provide:

- (i) A summary and table of the dates, times, and weather during all helicopter operations, and restoration and maintenance activities.
- (ii) Species, number, location, and behavior of any marine mammals, observed throughout all monitoring activities.

- (iii) An estimate of the number (by species) of marine mammals that are known to have been exposed to acoustic stimuli associated with the helicopter operations, restoration and maintenance activities.
- (iv) A description of the implementation and effectiveness of the monitoring and mitigation measures of the IHA and full documentation of methods, results, and interpretation pertaining to all monitoring.

# Final Monitoring Report

In addition to the interim reports, the SGRLPS will submit a draft Final Monitoring Report to NMFS no later than 90 days after the project is completed to the Regional Administrator and the Director of Office of Protected Resources at NMFS Headquarters. Within 30 days after receiving comments from NMFS on the draft Final Monitoring Report, the SGRLPS must submit a Final Monitoring Report to the Regional Administrator and the NMFS Director of Office of Protected Resources. If the SGRLPS receives no comments from NMFS on the draft Final Monitoring Report, the draft Final Monitoring Report will be considered to be the Final Monitoring Report.

The final report will provide:

- (i) A summary and table of the dates, times, and weather during all helicopter operations, and restoration and maintenance activities.
- (ii) Species, number, location, and behavior of any marine mammals, observed throughout all monitoring activities.
- (iii) An estimate of the number (by species) of marine mammals that are known to have been exposed to acoustic stimuli associated with the helicopter operations, restoration and maintenance activities.

(iv) A description of the implementation and effectiveness of the monitoring and mitigation measures of the IHA and full documentation of methods, results, and interpretation pertaining to all monitoring.

In the unanticipated event that the specified activity clearly causes the take of a marine mammal in a manner prohibited by the IHA (if issued), such as an injury (Level A harassment), serious injury or mortality (e.g., stampede), L-DEO shall immediately cease the specified activities and immediately report the incident to the Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, at 301-427-8401 and/or by email to <a href="Michael Payne@noaa.gov">Michael Payne@noaa.gov</a> and <a href="ITP.Cody@noaa.gov">ITP.Cody@noaa.gov</a> and to the Southwest Regional Stranding Coordinator at 562-980-3230 (Sarah.Wilkin@noaa.gov). The report must include the following information:

- Time, date, and location (latitude/longitude) of the incident;
- Environmental conditions (e.g., wind speed and direction, Beaufort sea state, cloud cover, and visibility);
- Species identification or description of the animal(s) involved;
- Fate of the animal(s); and
- Photographs or video footage of the animal(s) (if equipment is available).

Activities will not resume until NMFS is able to review the circumstances of the prohibited take. NMFS will work with the SGRLPS to determine what is necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. The SGRLPS may not resume their activities until notified by NMFS via letter, email, or telephone.

In the event that the SGRLPS discovers an injured or dead marine mammal, and the biologist (if present) determines that the cause of the injury or death is unknown and the death is relatively

recent (i.e., in less than a moderate state of decomposition as described in the next paragraph), the SGRLPS will immediately report the incident to the Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, at 301-427-8401 and/or by email to <a href="Michael.Payne@noaa.gov">Michael.Payne@noaa.gov</a> and <a href="ITP.Cody@noaa.gov">ITP.Cody@noaa.gov</a> and to the Southwest Regional Stranding Coordinator at 562-980-3230 (<a href="Sarah.Wilkin@noaa.gov">Sarah.Wilkin@noaa.gov</a>). The report must include the same information identified in the paragraph above. Activities may continue while NMFS reviews the circumstances of the incident. NMFS will work with the SGRLPS to determine whether modifications in the activities are appropriate.

In the event that the SGRLPS discovers an injured or dead marine mammal, and the lead biologist (if present) determines that the injury or death is not associated with or related to the activities authorized in the IHA (e.g., previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), the SGRLPS will report the incident to the to the Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, at 301-427-8401 and/or by email to <a href="Michael.Payne@noaa.gov">Michael.Payne@noaa.gov</a> and <a href="ITP.Cody@noaa.gov">ITP.Cody@noaa.gov</a> and to the Southwest Regional Stranding Coordinator at 562-980-3230 (<a href="Sarah.Wilkin@noaa.gov">Sarah.Wilkin@noaa.gov</a>), within 24 hours of the discovery. The SGRLPS will provide photographs or video footage (if available) or other documentation of the stranded animal sighting to NMFS.

Estimated Take by Incidental Harassment

Except with respect to certain activities not pertinent here, the MMPA defines "harassment" as:

any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [Level B harassment].

Only take by Level B harassment is anticipated and authorized as a result of the helicopter operations and restoration and maintenance activities on NWSR.

Based on pinniped survey counts conducted by CCR on NWSR in the spring of 1997, 1998, 1999, and 2000 (CCR, 2001), NMFS estimates that approximately 204 California sea lions (calculated by multiplying the average monthly abundance of California sea lions (zero in April, 1997 and 34 in April, 1998) present on NWSR by 6 months of the proposed restoration and maintenance activities), 172 Steller sea lions (NMFS' estimate of the maximum number of Steller sea lions that could be present on NWSR with a 95-percent confidence interval), 36 Pacific harbor seals (calculated by multiplying the maximum number of harbor seals present on NWSR (6) by 6 months), and 6 northern fur seals (calculated by multiplying the maximum number of northern fur seals present on NWSR (1) by 6 months) could be potentially affected by Level B behavioral harassment over the course of the proposed IHA. Estimates of the numbers of marine mammals that might be affected are based on consideration of the number of marine mammals that could be disturbed appreciably by approximately 51 hrs of aircraft operations during the course of the proposed activity. These incidental harassment take numbers represent approximately 0.14 percent of the U.S. stock of California sea lion, 0.42 percent of the eastern U.S. stock of Steller sea lion, 0.11 percent of the California stock of Pacific harbor seals, and 0.06 percent of the San Miguel Island stock of northern fur seal. Because of the required mitigation measures and the likelihood that some pinnipeds will avoid the area, no injury or mortality to pinnipeds is expected nor requested.

Negligible Impact and Small Numbers Analysis and Determination

NMFS has defined "negligible impact" in 50 CFR 216.103 as "...an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to,

adversely affect the species or stock through effects on annual rates of recruitment or survival."

In making a negligible impact determination, NMFS considers:

- (1) The number of anticipated mortalities;
- (2) The number and nature of anticipated injuries;
- (3) The number, nature, and intensity, and duration of Level B harassment; and
- (4) The context in which the takes occur.

As mentioned previously, NMFS estimates that four species of marine mammals could be potentially affected by Level B harassment over the course of the IHA. For each species, these numbers are small (each, less than one percent) relative to the population size.

No takes by Level A harassment, serious injury, or mortality are anticipated to occur as a result of the SGRLPS' proposed activities, and none are authorized. Only short-term behavioral disturbance is anticipated to occur due to the brief and sporadic duration of the proposed activities; the availability of alternate areas near NWSR for marine mammals to avoid the resultant acoustic disturbance; and limited access to NWSR during the pupping season. Due to the nature, degree, and context of the behavioral harassment anticipated, the activities are not expected to impact rates of recruitment or survival.

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the mitigation and monitoring measures, NMFS preliminarily finds that the SGRLPS' planned helicopter operations and restoration/maintenance activities, will result in the incidental take of small numbers of marine mammals, by Level B harassment only, and that the total taking from the helicopter operations and restoration/maintenance activities will have a negligible impact on the affected species or stocks.

Impact on Availability of Affected Species or Stock for Taking for Subsistence Uses

There are no relevant subsistence uses of marine mammals implicated by this action.

Endangered Species Act (ESA)

The Steller sea lion, eastern Distinct Population Segment (DPS) is listed as threatened under the ESA and occurs in the planned action area. NMFS Headquarters' Office of Protected Resources, Permits, Conservation, and Education Division conducted a formal section 7 consultation under the ESA with the Southwest Region, NMFS. On January 27, 2010, the Southwest Region issued a BiOp and concluded that the issuance of IHAs are likely to adversely affect, but not likely to jeopardize the continued existence of Steller sea lions. NMFS has designated critical habitat for the eastern Distinct Population Segment of Steller sea lions in California at Año Nuevo Island, Southeast Farallon Island, Sugarloaf Island and Cape Mendocino, California pursuant to section 4 of the ESA (see 50 CFR 226.202(b)). Northwest Seal Rock is neither within nor nearby these designated areas. Finally, the BiOp included an ITS for Steller sea lions. The ITS contains reasonable and prudent measures implemented by terms and conditions to minimize the effects of this take.

NMFS has reviewed the 2010 BiOp and determined that there is no new information regarding effects to Stellar sea lions; the action has not been modified in a manner which would cause adverse effects not previously evaluated; there has been no new listing of species or designation of critical habitat that could be affected by the action; and, the action will not exceed the extent or amount of incidental take authorized in the ITS. Therefore, the proposed IHA does not require the reinitiation of Section 7 consultation under the ESA.

National Environmental Policy Act (NEPA)

To meet NMFS' NEPA requirements for the issuance of an IHA to the SGRLPS, NMFS

prepared an Environmental Assessment (EA) in 2010 that was specific to conducting aircraft

operations and restoration and maintenance work on the St. George Reef Light Station. The EA,

titled "Issuance of an Incidental Harassment Authorization to Take Marine Mammals by

Harassment Incidental to Conducting Aircraft Operations, Lighthouse Restoration and

Maintenance Activities on St. George Reef Lighthouse Station in Del Norte County, California,"

evaluated the impacts on the human environment of NMFS' authorization of incidental Level B

harassment resulting from the specified activity in the specified geographic region. At that time,

NMFS concluded that issuance of an IHA November 1 through April 30, annually would not

significantly affect the quality of the human environment and issued a Finding of No Significant

Impact (FONSI) for the 2010 EA regarding the SGRLPS' activities. In conjunction with the

SGRLPS' 2012 application, NMFS has again reviewed the 2010 EA and determined that there

are no new direct, indirect or cumulative impacts to the human and natural environment

associated with the IHA requiring evaluation in a supplemental EA and NMFS, therefore,

intends to reaffirm the 2010 FONSI. An electronic copy of the EA and the FONSI for this

activity is available upon request (see ADDRESSES).

Dated: December 16, 2011

James H. Lecky.

Deputy Director, Office of Protected Resources,

National Marine Fisheries Service.

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